

REMARKS

This responds to the Office Action dated on March 8, 2005. Claims 1 and 21 are amended, no claims are canceled, and no claims are added. Thus, claims 1-38 are currently pending. Of these currently pending claims, claims 3-5, 7-14, 17-19 and 23-38 currently stand withdrawn and claims 1-2, 6, 15, 16 and 20-22 are currently being examined.

§112 Rejection of the Claims

Claims 21 and 22 were rejected under 35 U.S.C. § 112, second paragraph. Applicant has amended claim 21 to clarify that a processor interfaces with the actuator, the transmitter and the receiver to control the position of the gate. Applicant respectfully request withdrawal of the rejection, and reconsideration and allowance of the claims.

§102 Rejection of the Claims

Claims 1 and 15 were rejected under 35 U.S.C. § 102(e) as being anticipated by Simon et al. (U.S. Patent No. 6,447,674). Applicant respectfully traverses.

With respect to claim 1, Applicant is unable to find, among other things, either a showing or a suggestion of a gate position sensor, comprising a transmitter for transmitting a signal in a flow controller, wherein a position of a gate in the flow controller affects the signal. and a receiver for receiving the signal, wherein the receiver provides an indication of a gate position within the flow controller based on the signal received, as recited in the claim.

With respect to claim 15, Applicant is unable to find, among other things, either a showing or suggestion of a system, comprising an inflow line, a flow controller positioned in the inflow line for controlling flow where the flow controller including a gate and an actuator for moving the gate to control flow, and a gate position sensor for monitoring whether the gate is in an opened position or a closed position, and a processor for controlling the position of the gate and for interfacing with the sensor, as recited in the claim. The recited sensor includes means for transmitting a signal in the flow controller such that a position of the gate in the flow controller affects the signal, and means for receiving the signal and providing an indication of a gate position within the mass flow controller based on the signal received.

Applicant respectfully asserts that the office action does not include a prima facie case of anticipation to reject the claims under §102(e). The entire discussion of the §102 (e) rejection states:

Note abstract, fig. 1 and claims 6 and 8. Note weight responsive flow control is considered to be equivalent to mass flow control.

Should the Examiner choose to maintain the rejection, Applicant respectfully requests the Examiner to clarify the rejection by: (1) clearly stating the reasons for the rejection, and providing such information or references as may be useful in aiding Applicant to judge the propriety of continuing in the prosecution (*See 37 CFR §1.104(a)(2)*); and (2) clearly designating the particular part relied upon and the pertinence thereof with respect to the language of the claims (*See 37 CFR §1.104(c)(2)*).

The rejection indicates that a weight responsive flow control is considered to be equivalent to a mass flow control, but does not identify what is being considered to be a transmitter for transmitting a signal in a flow controller wherein a position of a gate in the flow controller affects the signal, and a receiver for receiving the signal wherein the receiver provides an indication of a gate position within the flow controller based on the signal received, as recited in claim 1. What is considered by the Examiner to be the transmitter, the signal in the flow controller, the receiver for receiving the signal and providing an indication of gate position based on the signal received? Applicant respectfully submits that such information is required by 37 CFR §1.104.

Applicant respectfully requests withdrawal of the rejection, and reconsideration and allowance of the claims.

§103 Rejection of the Claims

Claims 20 and 21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Simon et al. (U.S. Patent No. 6,447,674) in view of Pakharna et al. (U.S. Patent No. 6,358,327). Applicant respectfully traverses. Applicant respectfully asserts that a prima facie case of obvious has not been shown. Applicant respectfully submits that the rejection does not identify how each and every element in the claims is either shown or suggested by the references.

Claim 20 depends on independent claim 15, and is believed to be in condition for allowance at least for the reasons provided with respect to claim 15. The rejection relies on Simon et al. apparently for the same reasons that Simon et al. was applied again claim 15. However, the rejection did not clearly identify that the language of claim 15 was shown in Simon et al. Applicant further asserts that the combination of Simon et al. and Pokharna do not show the system recited in claim 20.

With respect to independent claim 21, Applicant is unable to find in the combination of Simon et al. and Pokharna, among other things, either a showing or a fair suggestion of a semiconductor manufacturing system, comprising an ultrasonic semiconductor gas line, a processing chamber coupled to the gas line, a flow controller positioned in the gas line, and a processor as recited in the claim. The recited flow controller includes an orifice, a gate for controlling gas flow through the orifice and into the processing chamber, an actuator for oscillating the gate between an opened position and a closed position to control gas flow, a transmitter for transmitting a signal in the flow controller, and a receiver for receiving the signal such that the receiver provides an indication of whether the gate is in an opened position or a closed position based on the signal received. The recited processor interfaces with the actuator, the transmitter and the receiver to control the position of the gate.

Further, Applicant respectfully traverses the asserted motivation to combine a gravity flow sludge load-out system with a method for endpoint detection using throttle valve position. The rejection states that the flow control systems are similar, but does not identify why they are similar such that it would be obvious to combine. Additionally, Applicant respectfully requests the Examiner to identify where ultrasonic speed gas flows are shown or suggested.

Should the Examiner choose to maintain the rejection, Applicant respectfully requests the Examiner to clarify the rejection by: (1) clearly stating the reasons for the rejection, and providing such information or references as may be useful in aiding Applicant to judge the propriety of continuing in the prosecution (*See 37 CFR §1.104(a)(2)*); and (2) clearly designating the particular part relied upon and the pertinence thereof with respect to the language of the claims (*See 37 CFR §1.104(c)(2)*).

Applicant respectfully requests withdrawal of the rejection, and reconsideration and allowance of the claims.

Allowable Subject Matter

Claim 6 was allowed.

Claims 2 and 16 were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 22 was indicated to be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. § 112, 2nd paragraph, set forth in the Office Action and to include all the of the limitations of the base claim and any intervening claims.

Consideration of Withdrawn Claims

The office action stated: *claim 1 is not generic since claims 6 and 15-25 of Group 1 do not specify use in a mass flow controller as in claim 1.* Applicant addressed the Examiner's contention by amending claim 1 to recite flow controller rather than mass flow controller. Applicant respectfully submits that claim 1 is generic to the species identified in claim 1. Pursuant to 37 CFR 1.141, Applicant respectfully requests consideration of all other species in Group I (withdrawn claims 3-5, 7-14, 17-21 and 23-25) upon the allowance of claim 1.

Reservation of the Right to Swear Behind References

Applicant maintains its right to swear behind any references which are cited in a rejection under 35 U.S.C. §§102(a), 102(e), 103/102(a), and 103/102(e). Statements distinguishing the claimed subject matter over the cited references are not to be interpreted as admissions that the references are prior art.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 373-6960 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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Date 6-7-05

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 7 day of June, 2005.

Tina Kohnert
Name

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Signature